

JNMT Bookshelf

MEDICAL RADIATION BIOLOGY (second edition)

Donald J. Pizzarello and Richard L. Witcofski, Lea & Febiger, Philadelphia, 1983, 164 pp, \$18.50.

I cannot recall having ever read a book on the subject of radiation biology that utilizes the art of simplicity so well. Explanations of the complex materials covered in this text are very much improved in comparison with the first edition. The authors have indeed devoted much thought to translating highly technical topics into very understandable language. I am particularly impressed that no foredrawn conclusions or evaluations have been made on many still controversial subjects, such as risks of low-dose irradiation and occupational exposure. It was also gratifying to see that an updated chapter was devoted to cellular repair and recovery from radiation damage.

Another improvement over the first edition of this book is the combination of previous materials on intracellular radiation response into more condensed versions particularly with regard to the various modifying factors. Also, the inclusion in the second edition of a chapter on risks of diagnostic ultrasound is clear evidence that the authors are intent on keeping up with the state of the art with regard to new imaging modalities.

I recommend this book to technologists, students of radiation biology, professors, and physicians without reservation. It should certainly be made available as a library reference.

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111-INDIUM LABELED PLATELETS AND LEUCOCYTES

H.W. Wahner and D.A. Goodwin, eds, Central Chapter, Society of Nuclear Medicine, 1982, 378 pp, \$20.00

This volume is the edited proceedings of the second annual symposium on white cell and platelet labeling, which took place at the Mayo Clinic, Rochester, MN. Eighteen papers are divided into five parts: (1) An Introduction, (2) Laboratory Techniques for Labeling Leukocytes and Platelets, (3) Clinical Studies with Labeled Leukocytes, (4) Studies with Labeled Platelets in the Animal Mode, and (5) Studies with Labeled Platelets in Humans. Part 6 consists of a list of selected references.

It is intended that this conference summary would be a follow-up of a symposium held in 1979 in New York. The volume contains a brief introduction of cell physiology and pathology followed by sections on specific methodology of cell labeling and the clinical uses of the label components.

In general, the text is a very practical and understandable presentation of labeling and usage of indium-111 labeled leukocytes and platelets. The sections on the actual labeling procedures for leukocytes and platelets are excellent, well presented, and easily followed. The reader should be aware that these

are the methods used by the author and that other methods are used in different institutions. An extremely practical addition to the book is contained on page 95 where a nomograph is presented to relate the relative centrifugal force to rotor speed and the radius of the centrifuge head.

A few minor errors can be detected. Reference no. 16, on page 45, cites *Clinical Science*, volume 48, which turns out to be a typographical error since the actual reference is volume 58. Curiously, the references are interrupted by a page listing reagents for labeling leukocytes.

In summary, the text accomplishes the purpose of serving as a reference for physicians, technologists, and investigators, is well written, and is easily understood and followed. It is also well referenced, with the exception of two papers in which the authors limit their bibliography almost exclusively to work done by themselves.

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LOW-LEVEL RADIATION EFFECTS: A FACT BOOK

A. Bertrand Brill, editor, Society of Nuclear Medicine, New York, 1982, 156 pp, \$25.00.

I am always a little apprehensive about evaluating a "fact book" for use by the nuclear medicine technologist. When reviewing *Low-Level Radiation Effects: A Fact Book*, I took into consideration the following: (1) should it be on the shelf for personal use of nuclear medicine technologists and students? and (2) are these facts available anywhere else?

This publication is divided into seven sections. The first is a glossary that defines relatively new terminology, not frequently seen in the literature and not generally available to nuclear medicine technologists. It is good information and the tables at the end are helpful.

Section 2 pertains to radiobiology, dose response, dose-effect relationships, and graphs and curves that are highly abbreviated in explanation and that need background for interpretation not provided in this book. Adaptations are from much discussed and previously available data.

Section 3 applies to radiation doses and contains a good deal of original data on dose-equivalent rates.

The late somatic effects of low doses of ionizing radiation are covered in Section 4. This section contains resource information on tissue sensitivity, dose rate, and cancer correlation with US as well as foreign data. Effects on the embryo and childhood cancer after in utero irradiation are also covered. These data have been previously documented in NCRP and ICRP bulletins.

Section 5 covers genetic effects, and Section 6 includes risks—statistical facts and public perception. Both chapters

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